

## CLAIMS

*What is claimed is:*

5        1.     A Foreign Agent that supports Mobile IP, the Foreign Agent being on a foreign network and configured to enable a node visiting the Foreign Agent to send IP packets including voice information via an IP address obtained from an H.323 gateway, the Foreign Agent comprising:

             a processor; and

             a memory, the memory storing therein the following instructions:

             ✱ instructions for sending an agent advertisement, the agent advertisement identifying an H.323 gateway on the foreign network;

             ✱ instructions for receiving a packet from the node, the packet being addressed to the H.323 gateway and requesting an IP address associated with a destination;

             instructions for forwarding a packet including the requested IP address to the node; and

             instructions for receiving an IP packet including voice information from the node, the IP packet being addressed to the IP address.

20        2.     The Foreign Agent as recited in claim 1, wherein the node is a mobile node that supports Mobile IP.

             3.     The Foreign Agent as recited in claim 1, further comprising:

instructions for receiving the packet including the requested IP address from the H.323 gateway.

\* 4. The Foreign Agent as recited in claim 1, further comprising:

5 instructions for determining whether the H.323 gateway has access to the requested IP address associated with the destination;

instructions for obtaining the requested IP address from the H.323 gateway when the H.323 gateway does have access to the requested IP address associated with the destination; and

instructions for obtaining the requested IP address from a second H.323 gateway located at a home network of the node when the H.323 gateway does not have access to the requested IP address associated with the destination.

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k 5. The Foreign Agent as recited in claim 4, wherein the instructions for obtaining the requested IP address from a second H.323 gateway located at a home network of the node comprise:

instructions for sending a request for the requested IP address to the Home Agent; and

instructions for receiving the requested IP address from the Home Agent.

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6. The Foreign Agent as recited in claim 1, further comprising:

instructions for sending the IP packet addressed to the IP address to the IP address.

7. The Foreign Agent as recited in claim 1, wherein the IP address is associated with a PSTN gateway.

5 8. The Foreign Agent as recited in claim 1, further comprising:

instructions for sending a registration request to a Home Agent associated with the node;

instructions for receiving a registration reply from the Home Agent associated with the node; and

instructions for forwarding the registration reply to the node.

9. The Foreign Agent as recited in claim 8, further comprising:

instructions for receiving an IP packet including voice information from the Home Agent, the IP packet being addressed to the node; and

instructions for forwarding the IP packet to the node.

10. The Foreign Agent as recited in claim 1, further comprising:

instructions for notifying a corresponding node having the IP address that the node is visiting the Foreign Agent.

11. The Foreign Agent as recited in claim 1, further comprising:

instructions for notifying a corresponding node having the IP address that a care-of address of the node is an address of the Foreign Agent.

12. The Foreign Agent as recited in claim 11, wherein the corresponding node is a PSTN gateway.

5 13. The Foreign Agent as recited in claim 12, wherein the PSTN gateway supports Mobile IP and wherein notifying the corresponding node having the IP address that the care-of address of the node is an address of the Foreign Agent comprises sending a mobile IP packet including the care-of address to the PSTN gateway.

14. The Foreign Agent as recited in claim 1, further comprising:

instructions for notifying a corresponding node having the IP address that the node is no longer visiting the Foreign Agent.

15. A node visiting a Foreign Agent on a foreign network and being capable of sending IP packets including voice information via an IP address obtained from an H.323 gateway, the node comprising:

a processor; and

a memory storing therein the following instructions:

20 instructions for receiving an agent advertisement, the agent advertisement identifying an H.323 gateway on the foreign network;

instructions for sending a packet from the node, the packet being addressed to the H.323 gateway and requesting an IP address associated with a destination;

instructions for receiving a packet including the requested IP address; and

instructions for sending an IP packet including voice information from the node, the IP packet being addressed to the IP address.

16. The node as recited in claim 15, wherein the node is a mobile node that supports Mobile IP.

17. The node as recited in claim 15, further comprising:

instructions for saving H.323 gateway information associated with the H.323 gateway.

18. A Foreign Agent that supports Mobile IP, the Foreign Agent being on a foreign network and configured to enable a node visiting the Foreign Agent to send IP packets including voice information via an IP address obtained from an H.323 gateway, the Foreign Agent comprising:

means for sending an agent advertisement, the agent advertisement identifying an H.323 gateway on the foreign network;

means for receiving a packet from the node, the packet being addressed to the H.323 gateway and requesting an IP address associated with a destination;

means for forwarding a packet including the requested IP address to the node;  
and

means for receiving an IP packet including voice information from the node, the IP packet being addressed to the IP address.

19. A node visiting a Foreign Agent on a foreign network and being capable of sending IP packets including voice information via an IP address obtained from an H.323 gateway, the node comprising:

means for receiving an agent advertisement, the agent advertisement identifying an H.323 gateway on the foreign network;

means for sending a packet from the node, the packet being addressed to the H.323 gateway and requesting an IP address associated with a destination;

means for receiving a packet including the requested IP address; and

means for sending an IP packet including voice information from the node, the IP packet being addressed to the IP address.

20. A computer readable medium for enabling a node visiting a Foreign Agent to send IP packets including voice information via an IP address obtained from an H.323 gateway, the Foreign Agent being on a foreign network, comprising:

instructions for sending an agent advertisement, the agent advertisement identifying an H.323 gateway on the foreign network;

instructions for receiving a packet from the node, the packet being addressed to the H.323 gateway and requesting an IP address associated with a destination;

instructions for forwarding a packet including the requested IP address to the node; and

instructions for receiving an IP packet including voice information from the node, the IP packet being addressed to the IP address.

21. A computer-readable medium for enabling a node visiting a Foreign Agent to send IP packets including voice information via an IP address obtained from an H.323 gateway, the Foreign Agent being on a foreign network, comprising:

instructions for receiving an agent advertisement, the agent advertisement identifying an H.323 gateway on the foreign network;

instructions for sending a packet from the node, the packet being addressed to the H.323 gateway and requesting an IP address associated with a destination;

instructions for receiving a packet including the requested IP address; and

instructions for sending an IP packet including voice information from the node, the IP packet being addressed to the IP address.

22. In a Foreign Agent that supports Mobile IP, a method of enabling a node visiting the Foreign Agent to send IP packets including voice information via an IP address obtained from an H.323 gateway, the Foreign Agent being on a foreign network, the method comprising:

sending an agent advertisement, the agent advertisement identifying an H.323 gateway on the foreign network;

receiving a packet from the node, the packet being addressed to the H.323 gateway and requesting an IP address associated with a destination;

forwarding a packet including the requested IP address to the node; and

receiving an IP packet including voice information from the node, the IP packet being addressed to the IP address.

23. In a node visiting a Foreign Agent on a foreign network, a method of sending IP packets including voice information via an IP address obtained from an H.323 gateway, the method comprising:

receiving an agent advertisement, the agent advertisement identifying an H.323 gateway on the foreign network;

sending a packet from the node, the packet being addressed to the H.323 gateway and requesting an IP address associated with a destination;

receiving a packet including the requested IP address; and

sending an IP packet including voice information from the node, the IP packet being addressed to the IP address.